

Limiting Factors

Limiting Factors - factors that limit the growth of a population causing it to fluctuate at the carrying capacity.

ex: disease

starvation

pollution

competition

habitat

predator

Natural disaster

Water

Density Dependent Factors: a limiting factor that depends on population size

ex - competition

Disease

Food/Water

parasites.

Density Independent Factors - all populations are affected in similar ways, regardless of size of population.

ex - Natural disaster

carrying capacity (K)

exponential growth

Time

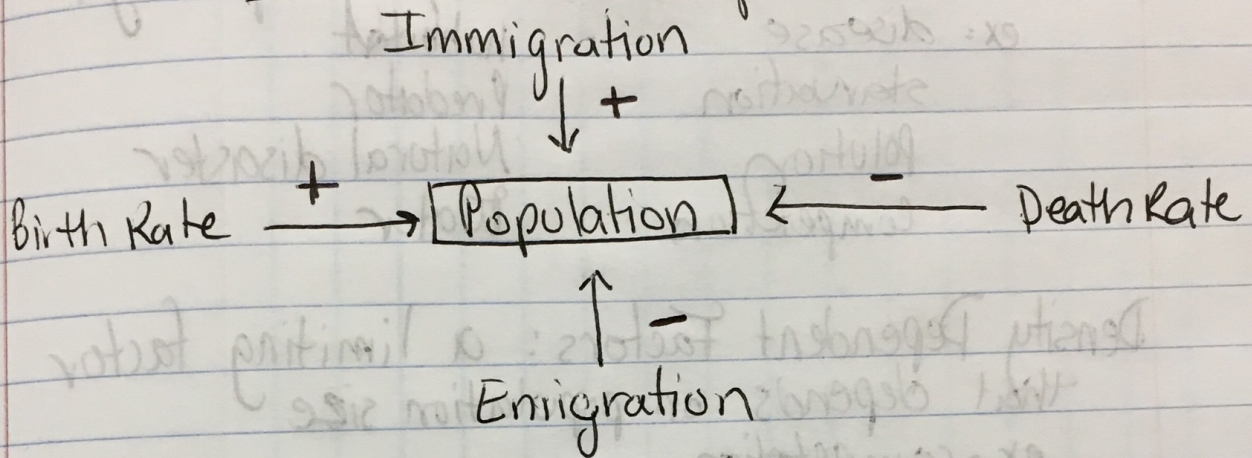
population size

population size

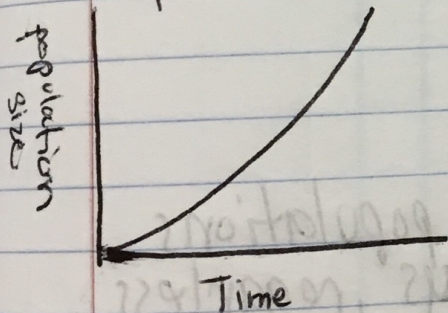
Population Growth and Carrying Capacity 151

Growth rate: the amount by which a population's size changes in a given time.

Factors that Affect Population Growth

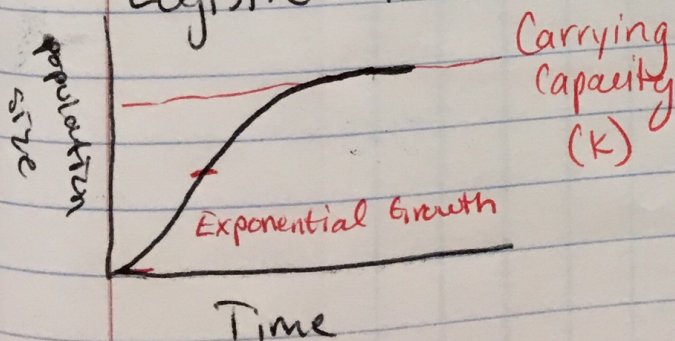


Exponential Growth



- occurs when unlimited natural resources.
- ex bacterial growth

Logistic Growth



- Growth slows as population reaches the limit of resources.
- limit to the population size based on resources is the carrying capacity